Amendments to the Specification:

Please replace paragraphs **[0047]** and **[0048]** with the following rewritten paragraphs:

[0047] FIGS. 1, 2 ~~and3show~~ and 3 show a first example of the configuration of an RF module according to an embodiment of the invention. FIG. 1 corresponds to a section taken along line A-A of FIGS. 2 and 3. In FIG. 3, for simplicity of the drawing, the thickness of the uppermost layer is omitted and the uppermost layer is hatched. The RF module has a structure of conversion between the TEM mode and another mode and can be used for, for example, a transmission line for RF signals, a filter, and the like. The RF module has a waveguide 10 (Fig. 1) capable of propagating electromagnetic waves in the TEM mode (hereinbelow, called a TEM waveguide) and a multilayer-structured waveguide 20 (Figs. 2 and 3) which is connected to the TEM waveguide 10 and propagates electromagnetic waves in a mode different from the TEM mode. In the configuration example, the TEM waveguide 10 corresponds to a concrete example of a "first waveguide" in the invention, and the waveguide 20 corresponds to a concrete example of a "second waveguide" in the invention.

[0048] The waveguide 20 has ground electrodes 21 and 23 which face each other while sandwiching a dielectric substrate 12 (Figs. 2 and 3) and a plurality of through holes 22 as conductors for bringing the ground electrodes 21 and 23 into conduction. In the waveguide 20, electromagnetic waves propagate, for example, in an S direction in the diagram in a region surrounded by the ground electrodes 21 and 23 and the through holes 22. The waveguide 20 may have a configuration of a dielectric waveguide in which the electromagnetic wave propagation region is filled with a dielectric or a configuration of a cavity waveguide having therein a cavity. The through holes 22 are provided at intervals of a certain value or less (for example, 1/4 of a signal wavelength or less) so that the propagating electromagnetic waves are not leaked. The inner face of the through hole 22 is metalized. The sectional shape of the through hole 22 is not limited to a circular shape but may be another shape such as a polygon shape or an oval shape.

Please replace paragraphs **[0079]-[0083]** with the following rewritten paragraphs:

[0079] The RF module of each of the configuration examples has only one electromagnetic wave propagation region on the second waveguide side. In the modification, a waveguide 60 (Fig. 15) having a multilayer structure as the second waveguide has a plurality of electromagnetic wave propagation regions.

[0080] The waveguide 60 has two dielectric substrates 52 and 53 (Fig. 15), three ground electrodes 61, 63, and 64 provided on the dielectric substrates 52 and 53 so as to face each other, and a plurality of through holes 55 and 62 as conductors each for bringing at least two ground electrodes of the ground electrodes 61, 63, and 64 into conduction. The lower ground electrode 61 is uniformly provided on the bottom face of the lower dielectric substrate 52. The upper ground electrode 63 is uniformly provided on the top face of the upper dielectric substrate 53. The intermediate ground electrode 64 is provided between the dielectric substrates 52 and 53. FIGS. 16A, 16B and 16C are plan views showing the configuration of the lower ground electrode 61, intermediate ground electrode 64, and upper ground electrode 63.

[0081] The through holes 55 and 62 are provided at intervals of a certain value or less (for example, 1/4 of the signal wavelength or less) so that the propagating electromagnetic waves are not leaked. The inner face of each of the through holes 55 and 62 is metalized. The sectional shape of each of the through holes 55 and 62 is not limited to a circular shape but may be another shape such as a polygon shape or an oval shape. The through hole 62 brings the upper ground electrode 63 and the intermediate ground electrode 64 into conduction. The through hole 55 brings the lower ground electrode 61 and the intermediate ground electrode 64 into conduction. The through holes 62 are disposed, for example, in an H shape between the upper and intermediate ground electrodes 63 and 64. The through holes 55 are disposed, for example, so as to surround the position P21 (Figs. 15, 16B and 17) of connection to the TEM waveguide 10.

[0082] In the waveguide 60, in two propagation regions 50A and 50B surrounded by the upper and intermediate ground electrodes 63 and 64 and through holes 62, electromagnetic waves propagate in the different directions S11 and S12 (Figs. 15, 16A and 17). The waveguide 60 may have a configuration of a dielectric waveguide in which the electromagnetic wave propagation regions 50A and 50B are filled with a dielectric or a configuration of a cavity waveguide having therein a cavity.

[0083] In the configuration example, the TEM waveguide 10 extends in the stacking direction (Y direction) of the ground electrodes 61, 63, and 64 of the waveguide 60 and its end portion is directly connected to the intermediate ground electrode 64 from the stacking direction side via the lower ground electrode 61 and is made conductive. In the lower ground electrode 61, an insertion hole 54 in which the TEM waveguide 10 is inserted is provided. In the intermediate ground electrode 64, coupling windows 51A and 51B for coupling adjustment are provided near the position P21 of connection to the TEM waveguide 10. Each of the coupling windows 51A and 51B is formed by partially cutting the intermediate ground electrode 64, for example, in a rectangular shape. The insertion hole 54 and the coupling windows 51A and 51B (Figs. 15, 16B and 17) are provided in a region surrounded by the through holes 55.

Please replace paragraph **[0085]** with the following rewritten paragraph:

[0085] Specifically, as shown in FIG. 16B, around the connection position P21, the magnetic fields generated by the TEM waveguide 10 are distributed mainly near the coupling windows 51A and 51B. The directions of the magnetic fields H11 and H12 (Fig. 16B) are opposite to each other. In the connection portion, when the directions of the magnetic fields H21 and H22 (Fig. 16B) in the propagation regions 50A and 50B of the waveguide 60 are set so as to be the same as those of the magnetic fields H11 and H12 of the TEM waveguide 10, respectively, the magnetic fields are coupled excellently in the H plane of each of the propagation regions 50A and 50B and the TEM mode is converted to another mode.